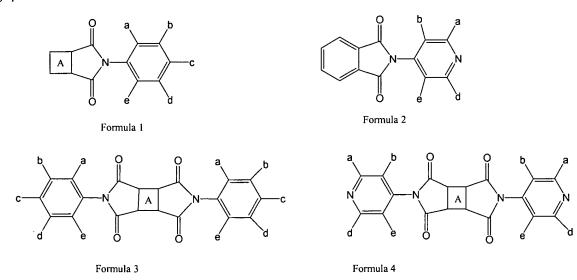
## AMENDMENTS TO THE CLAIMS

This set of claims replaces all previous versions.

- 1. (Canceled).
- 2. (Currently amended) A process The process as claimed in elaim 1 claim 12 wherein the polyolefin polymer is a polymer or copolymer of an aliphatic mono olefin containing two to six carbon atoms and having molecular weight of 30,000 to 5,00,000 500,000.
- 3. (Currently amended) A process The process as claimed in claim 2 wherein the aliphatic mono-olefin polymer has a molecular weight in the range of 30,000 to 3,00,000 300,000.
- 4. (Currently amended) A process The process as claimed in claim 2 wherein the aliphatic mono-olefin polymer is selected from the group consisting of polyethylene, polypropylene and ethylene-propylene copolymers.
- 5. (Currently amended) A process The process as claimed in claim 1 claim 12 wherein the polyolefin is taken along with nucleated in the presence of one or more copolymers containing at least one aliphatic olefin comonomer and one or more and an ethylenically unsaturated comonomers comonomer.
- 6. (Canceled).
- 7. (Currently amended) A process The process as claimed in claim 5, wherein the comonomer in comonomer of the co-polymer is present in an amount of 1 to 10% (w/w) of olefin.
- 8. (Currently amended) A process The process as claimed in elaim 1 claim 12 wherein the amount of imide nucleating agent used in polyolefin composition ranges from 0.01% to 5% based on the polyolefin.

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- 9. (Currently amended) A process The process as claimed in elaim 1 claim 12 wherein the amount of imide nucleating agent used in polyolefin composition is in the range of 0.01% to 2.0% based on the polyolefin.
- 10. (Currently amended) A process The process as claimed in elaim 1 claim 12 wherein the amount of imide nucleating agent used in polyolefin composition is in the range of 0.1% to 0.5% based on polyolefin.
- 11. (Currently amended) A process The process as claimed in elaim 1 claim 12 wherein one or more additives selected from the group consisting of antioxidants, acid quenchers, UV absorbers, lubricants and surfactants are added along with the nucleating agent.
- 12. (New) A process for the preparation of a semi-crystalline thermoplastic polymer, comprising the steps:
  - (a) nucleating an aliphatic polyolefin with an imide selected from a compound of formula 1 to 4



wherein in formula 1 and formula 2, A is a double bond or aromatic ring, c is a carboxyl functional group, and a, b, d, and e are each independently a hydrogen, an alkyl group of 1 to 4 carbon atoms, a carboxyl functional group, or a halogen; wherein in formula 3 and formula 4, A is a double bond, an aromatic ring, a benzene ring,

c is a carboxyl functional group, and a, b, d, and e are each independently a hydrogen, an alkyl group of 1 to 4 carbon atoms, a carboxyl functional group, or a halogen; thus obtaining a mixture; and

(b) extruding the mixture at a temperature in the range of 170-210°C.

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